



Early Warning Indicators (EWI) Overview

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Early Warning Indicators (EWI) Overview

In preparation for the Live Zoom session, Coaches and School Leadership Teams are asked to read this packet as an overview of the Early Warning Indicators to build background knowledge that will support not only the upcoming Tier 1 Addressing Attendance Schoolwide but also additional work that secondary schools will engage in with the MiMTSS Technical Assistance Center throughout the coming school year.

Overview

Early Warning Indicators

Early Warning Indicators (EWIs) are data points that district and school staff use to determine which students are at risk for dropping out of school and how well the school system is supporting students to stay engaged in school. These are the specific data points used within an Early Warning Intervention and Monitoring System (EWIMS). The risk indicators are organized into the ABCs: Attendance, Behavior and Course Performance. Each fall, a locally defined Incoming Risk Indicator is also used alongside attendance and behavior indicators prior to having course performance data available.

(A) Attendance

- Students are considered at-risk if they miss 10% of instruction time/days.
- This EWI is measured at the first 20 days of school and at the end of each term.

(B) Behavior

- Students are considered at-risk if they have been suspended for any length of time.
- This EWI is measured at the first 20 days and at the end of each term.

(C) Course Performance

- Middle school students are considered at-risk if they have an E, F, or No Credit in an English Language Arts or a Math course.
- High school students are considered at-risk if they have E, F, or No Credit in any course or if their cumulative GPA is below 2.0.
- This EWI is measured at the end of each term.

Incoming Risk Indicator

- At both middle and high school levels, the school or district team determines what data source(s) will be used and what score or cut point will indicate risk.
- Examples of risk indicators used:
 - Students are considered at risk if their previous spring or current fall reading assessment results are below a desired performance level (e.g., benchmark goal, 40th percentile).
 - Students are considered at risk if they had one or more flagged risk indicator the previous spring.
 - This EWI is measured at the first 20 days only.

Overall Engagement Indicator

- 0 risk indicators = low risk, likely to need Tier 1 support
- 1 risk indicator = moderate risk, likely to need Tier 2 support in addition to high quality Tier 1 support.
- 2 or more risk indicators = high risk, likely to need high intensity Tier 3 support in addition to high quality Tier 1 and 2 support.

Progress Since Last Screening

- At the end of each term, review each student's number of flagged EWIs from the previous and current term. At the end of the first term, compare with the first 20 days.
- Identify students as:
 - Maintaining 0 flags
 - Reducing number of flags from 1 to 0.
 - Reducing number of flags from 2+ to 1 or 0.
 - Measure at the end of each term.

Data Summary and Analysis Schedule

An X in the table below indicates that the indicator is summarized and analyzed at the specific time of year. Some indicators, such as attendance and behavior, are collected daily and could be monitored with high frequency. This table is designed to capture a schedule for systems-level analysis.

Table 1. Data Summary and Analysis Schedule

Indicators	20 Days	Term 1	Term 2	Term 3	Term 4 (if applicable)
Attendance	X	X	X	X	X
Behavior	X	X	X	X	X
Course Performance		X	X	X	X
Incoming Risk	X				
Overall Engagement Indicator	X	X	X	X	X
Progress Since Last Screening Period		X	X	X	X

Early Warning Intervention and Monitoring System

An Early Warning Intervention and Monitoring System (EWIMS) is a data-driven, decision-making process used by educators to systematically identify students who are showing signs of risk for dropping out of school. An effective EWIMS prompts educators to examine the underlying causes of risk, match students' needs to interventions, monitor students' progress, and monitor the effectiveness of interventions. Fundamentally, EWIMS is an ongoing cycle of

examining data and making decisions to help students be successful and on track for graduation.

The big ideas within the EWIMS process are supported in the [Preventing Dropout in Secondary Schools IES Practice Guide](#) (Dynarski et al., 2007). A [randomized-control trial](#) has demonstrated that EWIMS meets ESSA Tier 3 (promising evidence) for the outcomes of chronic absenteeism and course failures (Faria, et al., 2017). Research on the indicators, thresholds for risk and overall technical adequacy of organizing data in this way continue to grow.

EWIMS, MTSS and MICIP

Resources developed by Michigan's Multi-Tiered System of Supports (MiMTSS) Technical Assistance Center are designed with intentional collaboration and alignment to Michigan Department of Education priorities and guidance, including the MiMTSS Practice Profile and the Michigan Integrated Continuous Improvement Process (MICIP).

MTSS is a comprehensive framework that provides schools and districts with an efficient way to support the implementation of effective practices with fidelity so that all learners succeed. EWIMS is an evidence-based practice that fits within an MTSS framework. The seven EWIMS steps are aligned with many of the MTSS Components outlined in the Michigan Department of Education's MTSS Practice Profile. MICIP is a pathway for districts to improve student outcomes by assessing whole child needs to develop plans and coordinate funding. EWIMS can be an integral part of MICIP. If the MICIP needs assessment identifies needs in the area of graduation, attendance, behavior, or course performance, schools can be directed to the MiStrategyBank where the EWIMS evidence-based process may be identified for implementation as a school-wide intervention. EWIMS will also lead to the selection of additional interventions that may also be found in the MiStrategyBank.

Data Analysis

Data analysis and use at multiple levels (individual student, class, grade, school, district) will help to ensure the most robust Early Warning Intervention and Monitoring System. The information presented next focuses on ways to summarize data at the grade, school, or district level.

Overall Engagement Indicator

Understanding the percent of student's school-wide and at each grade level different levels of overall risk provides information about the overall health of the school system and an understanding of how resources need to be allocated.

- 0 risk indicators
- 1 risk indicator
- 2 or more risk indicators

Progress Since Last Screening

Analyzing the percent of student's school-wide and at each grade level who stayed at 0 risk indicators or have less risk indicators since the last screening period is one way of understanding whether implementation is resulting in improvements for learners.

Individual Indicator and Cross-Indicator Results

Understanding the number of students found at-risk with each individual indicator and with combinations of indicators can lead to well-developed interventions that are matched to

students' needs. For instance, the way to intervene with a group of students that only have an attendance risk indicator is different than a group of students with both an attendance and course failure risk indicator.

Data Systems

EWI data should be stored securely and kept confidential per FERPA guidelines regarding Personally Identifiable Information.

Michigan DataHub

The Michigan DataHub connects multiple district data systems together, allowing for integration of data across multiple systems, using a single point of data entry. The DataHub includes an Early Warning System dashboard tool for districts with connected data to begin analyzing attendance, behavior, and course performance indicators.

Michigan's MTSS (MiMTSS) Data System

The MiMTSS Data System is designed for school leadership teams, district implementation teams, and ISD Implementation Teams to examine aggregated EWI data with visual displays in dashboards. The dashboard views are aligned with the MiMTSS TA Center's professional learning materials for school- and district-level data review.

MiEWIMS

MiEWIMS is a new system is being developed as a collaboration between the Michigan Collaboration Hub, MiDataHub, MiMTSS TA Center, and Michigan Department of Education. When districts have attendance, behavior, and course performance data flowing to the DataHub, they will be able to turn on access to MiEWIMS for reporting at district, school, grade, teacher/class, group, and student levels to make timely, informed decisions within the EWIMS process.

Consent to Collect and Use Data

EWIs are data that are already collected by schools and are organized into a system for efficient and effective data analysis and action planning. The collection and use of data within EWIMS typically do not require any further parent/guardian permission. Although active consent is not required for districts to organize and administer universal screening assessments, it is best practice for districts to communicate with families about the data sources used to make decisions about how to best meet the needs of all learners. Consent is required for students to participate in supplemental interventions.

Training

A trained Early Warning System (EWS) Coordinator should be involved in installation and use of EWI data. EWS Coordinators are trained to support installation of the data/tool, including decisions about roles and responsibilities, schedules for data collection and accuracy checks, and decisions about the details of which attendance, behavior, and course performances codes will be used. All of this work is to ensure systems are in place to maintain the accuracy of early warning indicator data and that staff have access to the system. Early Warning System Coordinators may also have a coaching role for school and district teams, in addition to their primary data support role.

Professional learning focused on the broader EWIMS process are available through other targeted and intensive technical assistance offerings for MTSS. Offerings are outlined annually in a Technical Assistance Catalog.

EWIMS Frequently Asked Questions and Answers

Several common questions are listed below about an Early Warning Intervention and Monitoring System (EWIMS).

Question 1: What is the difference between EWIMS, EWI, and EWS?

There are so many acronyms! Each of these three acronyms are intended to be used distinctly. Just don't spend too much time worrying about getting it exactly right every time.

- **EWIMS** (Early Warning Intervention and Monitoring System): A 7-step process that includes the identification of roles and responsibilities, use of a tool (EWS), and a 5-part data-driven problem-solving process.
- **EWI** (Early Warning Indicators): The specific ABC data **indicators** of Attendance, Behavior, Course Performance, and Incoming Risk Indicator.
- **EWS** (Early Warning System): **Tool or system** for gathering and organizing Early Warning Indicators into a meaningful format that can be used within a decision-making process.

Question 2: Do we use the early warning indicators at the elementary level?

There is research available to suggest that an elementary-level Early Warning System holds a lot of value. At the elementary level, reading performance serves as a critical indicator of success. Districts can reduce assessment load and be more focused by beginning their use of an Early Warning System specifically with secondary schools. At the secondary level, it becomes increasingly important that a screening tool is able to predict the critical outcome of on-time graduation rather than reading performance alone.

Question 3: Wouldn't it be better if we also used student identity markers (e.g., SES, race/ethnicity) to indicate risk for dropping out of school?

It is important to understand that Early Warning Indicators differ from student classifications. For example, although a special education code, or a demographic category, may impact a student's trajectory, the code or category may not, itself, be an early warning indicator. Even free or reduced-price lunch status should not automatically be assumed to indicate risk. Identity markers can provide helpful clues in some cases, but alone they are not predictive of student success or graduation. In EWIMS, indicator flags are merely a method of recognizing students who are struggling. (source: MDE EWIMS Overview course).

Question 4: Why are the course performance indicators different for middle school vs. high school?

Research has demonstrated different risk indicators and thresholds for middle vs. high school (Balfanz & Herzog, 2005). Once students enter high school, successful performance in all courses will help them to earn credits toward on-time graduation. Thus, an emphasis beyond English Language Arts and Math becomes important. Grade Point Average also becomes an indicator of overall credit accumulation and likelihood of on-time graduation.

Question 5: Why use 10% or greater absence rate as the middle school attendance risk threshold instead of 20%?

A common risk threshold of 10% is in alignment with state and national definitions of chronic absenteeism. Additionally, during the MiMTSS TA Center's first two years of working with secondary schools to use EWI data, districts made repeated requests to change the middle school attendance risk threshold to 10%. The request was honored after reviewing data and finding that the 20% threshold resulted in fewer middle school students being identified as at risk for attendance, only to enter high school and be flagged not due to a change in attendance but due to a change in the risk threshold.

Question 6: For schools using the School-wide Information System (SWIS), why wouldn't we use discipline referral data as the behavior indicator instead of suspensions?

SWIS helps schools to effectively use discipline referral data for decision-making and is particularly well-suited for use within a Multi-Tiered System of Supports. Schools with SWIS accounts are set up to use referral data in the context of PBIS. Therefore, using Suspension data as the common data source for the Behavior Early Warning Indicator provides an opportunity for an additional layer of data analysis beyond discipline referrals. In addition, suspensions data are available for all Michigan schools, whereas discipline referral data are not as uniformly collected.

Question 7: When we analyze our data, why do we see more students with 1 flag/risk indicator when looking at overall engagement, than we see when we look at the number of students flagged on individual indicators (e.g., attendance, behavior, course fails)?

When there is limited overlap among students flagged for individual indicators, the Overall Engagement Indicator will show more students at moderate risk than might seem intuitive when comparing results across indicators. For example, if 10 students are flagged for attendance risk and 10 students are flagged for course failure risk, but only 2 of those students overlap, the overall engagement indicator would show that 18 students have at least 1 flag and are at moderate risk.

Question 8: What is the best EWIMS data tool or system to use?

The MiMTSS TA Center, the MDE EWIMS Core Team, and a partnering district collaborated during 2018-19 to systematically cross-walk the features and functionality of the MiDataHub EWS dashboard and the MiMTSS TA Center PowerSchool EWS resources. A detailed analysis of strengths and challenges of each system was conducted with the long-term goal of being able to use the MiDataHub EWS dashboard to meet all EWIMS analysis needs for all Michigan districts, including MiMTSS TA Center partners. This resulted in collaboration on the MiEWIMS tool (in development). When MiEWIMS is broadly available (estimated 2021-22), this will be the recommended data tool for Michigan districts.

Check for Understanding

Respond to the following checks for understanding at least one day before the training:

1. What do A, B and C stand for?
 - a. A:
 - b. B:
 - c. C:
2. Name the two course performance indicators for each grade band:
 - a. Middle school (grades 5-8):
 - b. High school (grades 9-12):
3. What additional indicator is used at the first 20 days?
 - a. Attendance
 - b. GPA
 - c. Incoming Risk Indicator
 - d. Course Grades
4. EWIMS, MTSS, and MICIP are:
 - a. The same thing with different names
 - b. Complimentary practices and frameworks
 - c. Not related

References

- Dynarski, M., Clarke, L., Cobb, B., Finn, J., Rumberger, R., and Smink, J. (2008). Dropout Prevention: A Practice Guide (NCEE 2008–4025). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc>.
- Faria, A.-M., Sorensen, N., Heppen, J., Bowdon, J., Taylor, S., Eisner, R., & Foster, S. (2017). Getting students on track for graduation: Impacts of the Early Warning Intervention and Monitoring System after one year (REL 2017–272). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Midwest. Retrieved from <http://ies.ed.gov/ncee/edlabs>.

Additional Resources

- [Michigan Department of Education EWIMS page](#)
- [Michigan Department of Education MTSS page](#)
- [MiMTSS TA Center EWI Webpage](#)
- [MiMTSS TA Center EWS Coordinator Webpage](#)
- [American Institutes for Research EWS Resources](#)

URLs Used in Document

[Michigan Department of Education EWIMS page](https://www.michigan.gov/mde/0,4615,7-140-81376_83587---,00.html)

(https://www.michigan.gov/mde/0,4615,7-140-81376_83587---,00.html)

[Michigan Department of Education MTSS page](https://www.michigan.gov/mde/0,4615,7-140-28753_65803_86454---,00.html)

(https://www.michigan.gov/mde/0,4615,7-140-28753_65803_86454---,00.html)

[MiMTSS TA Center EWS Coordinator Webpage](https://mimtsstac.org/teams-roles/specialized-functions/data-coordinators/early-warning-system-coordinator)

(<https://mimtsstac.org/teams-roles/specialized-functions/data-coordinators/early-warning-system-coordinator>)

[American Institutes for Research EWS Resources](http://www.earlywarningsystems.org/resources/)

(<http://www.earlywarningsystems.org/resources/>)

[Preventing Dropout in Secondary Schools IES Practice Guide](https://ies.ed.gov/ncee/wwc/PracticeGuide/24)

(<https://ies.ed.gov/ncee/wwc/PracticeGuide/24>)

[Randomized Control Trial](https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=388)

(<https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=388>)

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